Climate-Smart Wood

What is Climate-Smart Wood?
The materials used in construction in Washington have major impacts on the environment and fair labor. As the movement to decarbonize buildings grows, builders are increasingly interested in understanding the *embodied carbon* of building materials and procuring materials with a lower embodied carbon footprint. This interest extends to wood as a structural building material, as well as to concrete and steel. However, as building standards are developed and procurement decisions are made at local and state levels, it's important to understand that **all wood is *not* equal.**

Climate-smart wood is wood sourced from forests managed for ecological health, increased carbon storage, and/or adaptation to climate change. This type of management typically includes longer rotations (time between harvests) accompanied by thinning, controlled burning when appropriate to restore ecological resilience, minimizing carbon emissions from harvesting practices, and protecting old growth and other areas of high conservation value. Climate-smart management varies based on the context of each forest. Washington's wet western forests may be more appropriately managed for carbon sequestration, while prioritizing increased resilience to wildfire is often the more climate-adapted management approach on the drier east side of the Cascades. **Climate-smart forestry looks at the whole picture of the human and ecological values of forest ecosystems**, rather than considering timber alone.

Definitions

Climate-smart forestry – forest management practices that maintain and restore forest ecosystems, remove and sequester more carbon than conventional practices, and increase forest resiliency in the face of climate change. To be a sustainable strategy, climate-smart wood must consider values and management impacts beyond carbon sequestration, e.g. protection of old growth and other high conservation value forests, and protection of biodiversity, water resources, and human rights.

Procurement is the process for purchasing goods and services. This process includes planning, bidding, and contracting phases.

Embodied carbon – greenhouse gas emissions arising from the production of a building material and/or the construction of building materials or an entire building. Carbon emissions through the life cycle of a product include extraction of raw materials, transportation, manufacturing, installation, maintenance, end of life of the material, disposal, and more.

Wood is a unique building material in that it comes from a living system, and forest ecosystems are complex systems that vary dramatically. **The climate impacts of climate-smart wood involve much more than an equation for net carbon stored or sequestered**, because trees can provide so many ecosystem services that contribute to climate resilience, including maintaining cool stream temperatures, providing wildlife habitat, and preventing flooding.

In addition to ecological factors, fair labor is also an important element of climate-smart forestry. The **workers who harvest and process forest products deserve to work in conditions that are safe and to be paid living wages.** Manufacturers who invest in high labor standards deserve to be recognized. Policies that promote fair standards for labor are needed to ensure progress on environment and labor occur in tandem

Supply Chain Information Challenges
For both environmental and labor-related aspects of construction materials, environmental product declarations (EPDs) are the industry standard tool for reporting and transparency. For wood, EPDs currently rely on an assumption that wood is a carbon-neutral material based on national trends in forest growth and loss. EPDs do not capture the variability among different wood products of different origins, nor the range of carbon impacts of wood at the forest-level– where the most significant carbon impacts

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occur. **EPDs provide good but not perfect information**, and efforts are under way to improve these tools, with leadership of experts in the architecture, engineering, and construction (AEC) industry. Transparency into the origins of wood allows us to understand forest management practices and the impacts of wood production. Traceability of a wood product from forest of origin through mills and manufacturing facilities – sometimes called "chain of custody" – is one way to achieve this transparency. Forest management certification, like Forest Stewardship Council, also provides with confidence of the standards of management for wood products. Traceability, forest management certification, and engagement with suppliers can help wood buyers procure climate-smart wood, tribally sourced wood, or other wood that matches their goals and values. Better connecting Washington's climate-smart wood producers to buyers helps support Washington grow a competitive wood industry and helps provide incentives for sustainably managed forests.

Policy Opportunities

As Washington continues to experience growth and construct new buildings, we have an opportunity to choose responsibly-sourced wood products that are regenerative for the climate, ecosystems, and people. Policies and initiatives at local and state levels can support climate-smart forestry and contribute to Washington's climate change and embodied carbon goals. At the state level, passing **Buy Clean, Buy Fair** legislation could support both ecological and labor goals associated with climate-smart forestry, as well as support economic competitiveness in Washington and contribute to meeting Washington's greenhouse gas emissions goals. At the local level, **procurement policies** – which can be standalone or part of a **climate action plan** – are a way to establish strong environmental and labor standards for materials purchased for city and county construction projects, while supporting local climate change goals.

Embodied Carbon in Washington

The Washington State 2021 Energy Strategy identifies reducing embodied carbon in the built environment as a requirement to meet the state's greenhouse gas emission limits.

- Executive Order 20-01 State Efficiency and Environmental Performance requires consideration of net embodied carbon on state-owned new facility construction.
- In November 2021, a Low Carbon Construction Task Force was announced at COP26 as part of the Pacific Coast Collaborative, including the states/provinces of California, Oregon, Washington, and British Columbia, and their largest cities.
- Cities and counties in Washington State are also introducing policies and programs to reduce embodied carbon, such as the King County Climate Action Plan and the City of Seattle Green Building Incentive Program, which both include requirements related to embodied carbon.

Source: Carbon Leadership Forum

Partners and Contributors

Blue Green Alliance
Ecotrust
Sustainable Northwest
Carbon Leadership Forum

Resources

https://www.climatesmartforestry.org/
https://carbonleadershipforum.org/wood/
https://fsc.org/en
https://www.buildingtransparency.org/
https://wecprotects.org/our-work/areas-of-work/evergreen-forests/climate-smart-wood/

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